

35.) (Twice Amended) A method of attaching a semiconductor die to an organic support structure, comprising:

affixing a first adhesive layer mounted on one side of a polyimide carrier layer [a first side of a two-sided adhesive tape] to a surface of the organic support structure, wherein the [adhesive tape] first adhesive layer is Carboxyl Terminated Acrylonitrile Butadiene modified epoxy resin [is a hybrid material including a first material having a high glass transition temperature and a second material having a low glass transition temperature]; and

affixing a face of the semiconductor die to a second adhesive layer mounted on an opposing side of the polyimide carrier layer, wherein the second adhesive layer is a Carboxyl Terminated Acrylonitrile Butadiene modified epoxy resin.

36.) (Twice Amended) A method of attaching a semiconductor die to an organic support structure, comprising:

affixing a first adhesive layer mounted on one side of a polyimide carrier layer [a first side of a two-sided adhesive tape] to a surface of the organic support structure, wherein the [adhesive tape] first adhesive layer is a hybrid material including thermoplastic and thermoset material[, and the thermoset component has a glass transition temperature of approximately 30 degrees C]; and

affixing a face of the semiconductor die to a second adhesive layer mounted on an opposing side of the carrier layer, wherein the second adhesive layer is a hybrid material including thermoplastic and thermoset material [a second side of the adhesive tape].

37.) (Twice Amended) A method of attaching a semiconductor die to an organic support structure, comprising:

affixing a [first side of a two-sided adhesive tape] first adhesive layer mounted on one side of a polyimide carrier layer to a surface of the organic support structure, wherein the first adhesive layer is a Carboxyl Terminated Acrylonitrile Butadiene modified epoxy resin [adhesive tape has a lamination temperature of less than or equal to approximately 100 degrees C]; and

affixing a face of the semiconductor die to a second adhesive layer mounted on an

opposing side of the polyimide carrier layer, wherein the second adhesive layer is a Carboxyl Terminated Acrylonitrile Butadiene modified epoxy resin [a second side of the adhesive tape].

38.) (Twice Amended) A method of attaching a semiconductor die to an organic support structure, comprising:

affixing a first [side of] adhesive layer mounted on one side of a polyimide carrier layer [a two-sided adhesive tape] to a surface of the organic support structure, [each side of the tape having an adhesive layer,] wherein the first adhesive layer is a hybrid material including thermoplastic and thermoset material [adhesive tape has a lamination temperature of less than or equal to approximately 100 degrees C, each] , the first adhesive layer having a thickness of .0005 inches, and the carrier layer having a thickness of .002 inches; and

affixing a face of the semiconductor die to [a second side of the adhesive tape] a second adhesive layer mounted on an opposing side of the polyimide carrier layer, wherein the second adhesive layer is a hybrid material including thermoplastic and thermoset material, the second adhesive layer having a thickness of .0005 inches.

39.) (Fourth Amended) A method of attaching a semiconductor die to an organic support structure, comprising:

[affixing] contacting a first [side of] adhesive layer mounted on one side of a polyimide carrier layer [a two-sided adhesive tape] to a surface of the organic support structure, wherein [adhesive of the adhesive tape] the first adhesive layer comprises a hybrid material of thermoplastic and thermosetting adhesive;

elevating the temperature to 100 degrees C to activate the first adhesive layer [side of the adhesive tape];

applying pressure to the [tape] first adhesive layer and organic support structure to laminate the [adhesive tape] first adhesive layer to the organic support structure;

[affixing] contacting a face of the semiconductor die to a second adhesive layer mounted on an opposing side of the carrier layer, wherein the second adhesive layer comprises a hybrid material of thermoplastic and thermosetting adhesive [a second side of the adhesive tape];

elevating the temperature of the [tape] second adhesive layer to activate the second adhesive layer [side of the adhesive tape]; and

applying pressure to the die and organic support structure to laminate the [adhesive tape] second adhesive layer to the die.

43.) (Amended) The method of claim 42 wherein the hybrid material in the first and second adhesive layers is a Carboxyl Terminated Acrylonitrile Butadiene modified epoxy resin [encapsulating material encapsulates the bond pads, bond wires, lead connections, and a portion of the die face and support structure].

44.) (Fourth Amended) A method of attaching a semiconductor die to an organic support structure, comprising:

[affixing] contacting a first adhesive layer mounted on one side of a polyimide carrier layer [side of a two-sided adhesive tape] to a surface of the organic support structure, wherein the first adhesive layer [adhesive of the adhesive tape] comprises a hybrid material of thermoplastic and thermosetting adhesive;

elevating the temperature of the first adhesive layer [tape] to activate the first adhesive layer [side of the adhesive tape];

applying pressure to the first adhesive layer [tape] and organic support structure to laminate the first adhesive layer [adhesive tape] to the organic support structure, wherein elevating the temperature and applying pressure occurs for 100ms;

[affixing] contacting a face of the semiconductor die to a second adhesive layer mounted on an opposing side of the polyimide carrier layer [a second side of the adhesive tape], wherein the second adhesive layer comprises a hybrid material of thermoplastic and thermosetting adhesive;

elevating the temperature of the second adhesive layer [tape to] activate the second adhesive layer [side of the adhesive tape];

applying pressure to the die and organic support structure to laminate the second adhesive layer [adhesive tape] to the die;

wire bonding bond wires to a plurality of bond pads on the die face with a plurality of lead connections on the organic support structure;

applying an encapsulating material over the bond pads, bond wires, lead connections, and a portion of the die face and support structure.

48.) (Amended) The method of claim [47] 44, wherein the hybrid material in the first and second adhesive layers is a Carboxyl Terminated Acrylonitrile Butadiene modified epoxy resin [further comprising curing the die and the organic support structure].

51.) (Twice Amended) A method for fabricating a semiconductor package comprising:

providing a semiconductor die having a face and a plurality of bond pads;

providing an organic support structure comprising a die attach area and a plurality of lead connections;

providing [a two-sided] an adhesive tape that includes a polyimide carrier layer between a first adhesive layer and a second adhesive layer [intermediate the die and the organic support structure to bond the die thereto], wherein the first adhesive layer and the second adhesive layer each include a Carboxyl Terminated Acrylonitrile Butadiene modified epoxy resin [adhesive tape has a lamination temperature of about ambient temperature]; and

attaching [a first side of the adhesive tape] the first adhesive layer to the die attach area of the organic support structure and [a second side of the adhesive tape] the second adhesive layer to the die face.

62.) (Twice Amended) The method of claim 34 wherein the [adhesive tape comprises Carboxyl Terminated Acrylonitrile Butadiene modified epoxy resin formed into] first and second adhesive layers are approximately .0005 inches in thickness.